

REMARKS

A non-final Office Action dated 15 August 2003 rejected all of the pending claims, Claims 1-20. The Office Action rejected Claims 1, 7-11, 13-16, and 19-20 under 35 U.S.C. §102(b) as being anticipated by Kabel [5,936,553]. Additionally, the Office Action rejected Claims 2-6, 12, and 17-18 under 35 U.S.C. §103(a) as being unpatentable over Kabel [5,936,553] in view of McElreath et al. [6,154,151].

Applicant has amended the claims to make explicit the extant terms in the claims. In reference to the term "navigation," the applicant has added the terms "airspeed," "altitude," and "direction of flight," to specifically augment the attitude data from the system. Additionally, the applicant has further defined "a primary flight display," the primary flight display is a display "configured to indicate the altitude, attitude, and direction of flight" of an aircraft. The definitions is consistent with the regulations regulating at least Part 23 aircraft, including, among others, 14 CFR §23.1311-1321 requiring the presence of indicators configured to display altitude, attitude, and direction of flight data as a part of a primary flight display. It is Applicant's considered position that the additional language does not engraft further limitations to the claims but rather makes explicit the implicit limitations in the prior language.

The Office Action rejected Claims 1, 7-11, 13-16, and 19-20 under 35 U.S.C. §102(b) as being anticipated by Kabel [5,936,553]. The limitations in a primary flight display now express in the independent claims, that the display is configured to display altitude, attitude, and direction of flight data along with the perspective view of earth ground and horizon distinguishes the claims of the application from Kabel.

Kabel merely teaches generating a perspective display of map view of navigational data relative to a position of an aircraft, from a point of view meant to approximate the position of the aircraft. Kabel does not teach the generation of the perspective view as a primary flight display, nor does Kabel teach generation of any additional data except direction of flight and route.



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Moreover, Kabel teaches the display of a route rather than waypoints alone as a part of the motivation as set forth in the Background section of the patent: “[m]ore specifically, the need exists for a navigation device which displays, on a display screen, a navigation route and way point information similar to a real world perspective view from the navigator’s actual location, even where the navigational information displayed includes multiple legs of a route positioned at various angles with respect to each other.” (Col. 2, Lines 29-32). In FIGURE 9, Kabel teaches the generation of a graphic representation of the route as an essential step. (Col. 7, Lines 14-63).

Applicant claims the overlay of waypoints onto the perspective view of terrain on a primary flight display. Applicant has not taught the further cluttering of the display with routes that might obscure the display of terrain data. Such a cluttered display would be at odds with the applicant’s express motivation to “simplify cockpit scan management.” (Para. 005, Application).

Applicant respectfully asserts that the teaching of Kabel is distinct from the claims as amended. Without the display of altitude and attitude, Kabel cannot be used as a primary display under regulations defining such displays. 14 CFR §23.1311-1321. Additionally, Kabel requires generation of graphic routes that the current application eschews. Kabel does not anticipate the claims of the application.

The Office Action rejected Claims 2-6, 12, and 17-18 under 35 U.S.C. §103(a) as being unpatentable over Kabel [5,936,553] in view of McElreath et al. [6,154,151]. As Applicant as previously argued, Kabel cannot be used as a primary display under regulations defining such displays and Kabel requires generation of graphic routes that the current application eschews. Applicant further asserts that the teachings of McElreath cannot be combined with Kabel to generate a perspective view of terrain.

McElreath states its motivation in the Background: “it would be advantageous to provide an improved aircraft instrumentation system for displaying the complete vertical situation of the aircraft.” (Col. 2, Lines 15-17). Vertical situation is defined in McElreath: “[t]he primary function of IVSD 12 is to display the current vertical situation of the aircraft, including the



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aircraft's Barometric Altitude, Radio Altitude, VS, and a vertical profile view of the current flight plan/selected navigation source.”

Applicant respectfully asserts that to add a vertical profile to the display of Kabel will not result in a primary flight display as that display is set forth in the claims. A vertical profile is specifically and expressly limited to the information along a single line, the current flight plan. No method is taught to integrate the two views suggested or taught by the references. Thus combining the references can only result in two distinct displays, neither duplicating the claimed display.

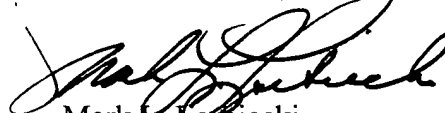
For the reasons set forth above, the claims are patentable over Kabel [5,936,553] in view of McElreath et al. [6,154,151].

CONCLUSION

The amendments to the claims make explicit the claim to the primary flight display. In light of these now-explicit claims directed to the primary display, the claims are in a condition for allowance. The applicant requests that the Examiner direct any questions or concerns to the applicant's attorney, the undersigned.

Respectfully submitted,

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MAIL CERTIFICATE

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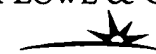
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